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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,669	03/22/2005	Kazuhito Kurita	0112857-509	8908

7590
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10/16/2007

EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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10/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,669

Applicant(s)

KURITA ET AL.

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-23 is/are allowed.
- 6) ☒ Claim(s) 11-17 is/are rejected.
- 7) ☒ Claim(s) 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Status

Claims 1-10 have been canceled by the Applicant in a Preliminary Amendment.

Claims 11-23 are currently pending.

Claim Objections

Claim 21 is objected to because of the following informalities and appropriate correction is required.

The following phrase(s) lack clear antecedent basis within the claim(s), i.e., either the particularly recited passage fails to be properly introduced prior to its appearance at that point in the claim or the structure recited in the passage is not an inherent part of or component of the previously recited structure. The lack of antecedence as noted *infra*, is merely formal, since the claims can be understood in light of the instant specification and drawings; the antecedence informalities delineated below do not rise to the level of a rejection under 35 USC 112 2nd paragraph:

- (i) As per claim 21 (line 10), "said inserting direction."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurozuka et al. (JP 07-006493).

As per claim 11, Kurozuka et al. (JP 07-006493) discloses a disc cartridge (12) comprising a disc (17); and a main cartridge body unit having said disc (17) rotatably housed therein; one lateral surface of said main cartridge body unit being a substantially semicircular arcuate section (e.g., see FIG. 1) having a center of said disc (17) housed in said main cartridge body unit as a center thereof (FIG. 1), wherein a back side of said main cartridge body unit opposite to an inserting end thereof formed as said arcuate section is a curved section (e.g., right side of cartridge in FIG. 2) having a curvature smaller than a curvature of said arcuate section curvature (i.e., the radius of curvature of the flat backside is at infinity, but includes rounded portions at sides thereof). Nothing in the claim as presently drafted precludes the mathematically correct statement that the radius of curvature of the back side lies outside of the cartridge at infinity.

Clearly, the back side of the cartridge body unit includes rounded corner portions, which are included as part of the flat section, such that the back side, does include some curvature - see rounded smooth section, which is a part of the backside, as depicted in FIG. 2.

Moreover still, however, the back side of said main cartridge body unit opposite to an inserting end thereof formed as said arcuate section includes a curved section (e.g., the curved internal holding segment between rollers (22, 22)) having a curvature smaller than a curvature of said arcuate section curvature. That is, the curvature of the curved internal disc holding backside segment between rollers (22, 22), only extends a small portion, i.e., a small curvature in terms of its circumferential length, to allow rollers (22, 22) to fit therein, while the arcuate

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front end of the cartridge - see FIG. 1, nearly extends the entire semicircle portion of the front side, and thus has a longer circumferential curvature length. Hence, "a back side of said main cartridge body unit opposite to an inserting end thereof formed as said arcuate section is a curved section ha[s] a curvature [in terms of circumferential length] smaller than a curvature of said arcuate section curvature [in terms of circumferential length]."

As per claim 12, wherein said arcuate section is formed on an inserting side (see arrow of FIG. 1) of said main cartridge body unit into a recording and/or reproducing apparatus (1).

As per claim 13, wherein the curved section is opposite to an inserting end of the main cartridge body unit.

As per claim 14, wherein said main cartridge body unit includes a recording and/or reproducing aperture (23) for exposing at least a portion of a signal recording area of said disc (17) to outside across an inner rim and an outer rim of the disc (17) and wherein said recording and/or reproducing aperture (23) is formed for being opened in a lateral side (e.g., the bottom side of the cartridge which also has a lateral extent) of said main cartridge body unit other than the lateral side (e.g., the front side thin side, perpendicular to the bottom side) formed as said arcuate section.

As per claim 15, wherein a shutter unit (e.g., 14) for opening/closing said recording and/or reproducing aperture (23) is movably mounted to said main cartridge body unit.

As per claim 16, wherein said shutter unit (14) is moved along a lateral side (e.g., the bottom side of the cartridge which also has a lateral extent) of said main cartridge body unit other than said arcuate section (e.g., at the front side thin side, perpendicular to the bottom side)

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of said main cartridge body unit for opening/closing said recording and/or reproducing aperture (23).

As per claim 17, wherein the lateral side along which is moved said shutter unit (14) is a side parallel to a movement direction of said shutter unit (14) (e.g., the bottom side of the cartridge which also has a lateral extent, and a front to rear extent; the front to rear extent of the bottom side of the cartridge is a side which is parallel to the arrow in FIG. 1).

Response to Arguments

Applicant's arguments filed September 5, 2007 have been fully considered but they are not persuasive.

The Applicant alleges that Kurozuka et al. (JP 07-006493) fails to disclose wherein the cartridge has a back side with a curved section having a curvature.

The Examiner respectfully disagrees. Moreover, Kurozuka et al. (JP 07-006493) discloses the disc cartridge (12) with the back side of the main cartridge body unit has a curved section (e.g., right side of cartridge in FIG. 2) having a curvature smaller than a curvature of said arcuate section curvature (i.e., the radius of curvature of the flat backside is at infinity, but includes rounded portions at sides thereof). Nothing in the claim as presently drafted precludes the mathematically correct statement that the radius of curvature of the back side lies outside of the cartridge at infinity.

Clearly, the back side of the cartridge body unit includes rounded corner portions, which are included as part of the flat section, such that the back side, does include some curvature - see rounded smooth section, which is a part of the backside, as depicted in FIG. 2.

Moreover still, however, the back side of said main cartridge body unit opposite to an inserting end thereof formed as said arcuate section includes a curved section (e.g., the curved internal holding segment between rollers (22, 22)) having a curvature smaller than a curvature of said arcuate section curvature. That is, the curvature of the curved internal disc holding backside segment between rollers (22, 22), only extends a small portion, i.e., a small curvature in terms of its circumferential length, to allow rollers (22, 22) to fit therein, while the arcuate front end of the cartridge - see FIG. 1, nearly extends the entire semicircle portion of the front side, and thus has a longer circumferential curvature length. Hence, “a back side of said main cartridge body unit opposite to an inserting end thereof formed as said arcuate section is a curved section ha[s] a curvature [in terms of circumferential length] smaller than a curvature of said arcuate section curvature [in terms of circumferential length].”

Thus the Examiner maintains that the rejections, *supra*, are appropriate and proper, and the rejection under 35 USC 102 as being anticipated by Kurozuka et al. (JP 07-006493), has been maintained.

As an aside, however, assuming *arguendo*, that the Applicant were to amend claim 11 to recite positive claim language that were to clearly obviate the Examiner's interpretation of Kurozuka et al. on the claims as presently drafted (e.g., reciting “wherein the back side of the main cartridge body unit has a curved section outer wall that has a continuously larger radius of curvature than a radius of curvature of the opposing arcuate section”) or, assuming that the Applicant is still unconvinced by the Examiner's 102 rejection, and feels that claim 11 is patentable, the Applicant should keep the following in mind; an invention that would have been

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obvious is not patentable. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also KSR*, 127 S.Ct. at 1734, 82 USPQ2d at 1391 (“While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.”)

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 1739, 82 USPQ2d at 1395. In particular, the Court reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The Court stated that there are “[t]hree cases decided after *Graham* [that] illustrate this doctrine.” *Id.* at 1739, 82 USPQ2d at 1395. “In *United States v. Adams*, . . . [t]he Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *Id.* at 1739-40, 82 USPQ2d at 1395. “In *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, . . . [t]he two [pre-existing elements] in combination did no more than they would in separate, sequential operation.” *Id.* at 1740, 82 USPQ2d at 1395. “[I]n *Sakraida v. AG Pro, Inc.*, . . . the Court derived from the precedents the conclusion that when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the

combination is obvious.” *Id.* at 1740, 82 USPQ2d at 1395-96 (internal quotation omitted). The principles underlining these cases are instructive when the question is whether a patent application claiming the combination of elements of prior art is obvious.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740, 82 USPQ2d at 1396. The operative question is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

Thus, even if the Applicant is still of the opinion that the Examiner rejection, *supra*, is in error (the Examiner strenuously believes, however, the rejection under 35 USC 102 is appropriate), or that the claim can be modified to positively define a radius of back side outer wall curvature, the teachings of Kurozuka et al. (JP 07-006493), the level of skill in the art, and small difference between the alleged straight back side of the cartridge of Kurozuka et al. (JP 07-006493), and a back side having an ever-so-very slight curvature thereto, the Examiner concludes that such a slight back side curvature to the cartridge of Kurozuka et al. (JP 07-006493), is just a mere change in slight shape, and is considered to be nothing more than a design choice, with predictable results.

That is, providing a very slight curved back side surface (i.e., a very large radius of curvature) to the cartridge of Kurozuka et al., such slight curvature would not change the manner

in which the cartridge of Kurozuka et al. functions, the way the cartridge of Kurozuka et al. operates, nor result in any difference (structural or functional) between the cartridge of Kurozuka et al. and the claimed invention.

Furthermore, assuming the Applicant were to amend the claim to positively obviate the Examiner's interpretation of the back side curvature of Kurozuka et al., the Applicant has presented no argument which convinces the Examiner that the particular configuration or shape of the back side of the claimed cartridge is significant or is anything more than one of numerous configurations a person of ordinary skill in the art would find obvious for the purpose of providing a back side of a conventional cartridge. See *In re Dailey*, 149 USPQ 47 (CCPA 1966); *Graham v. Deere Co.*, 383 U.S. 1, 148 USPQ 459, *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007).

Allowable Subject Matter

Claims 18-20 are again *tentatively* objected to as being dependent upon a rejected base claim, but, pending an updated search, amendments or arguments presented by the Applicant and considered by the Examiner in reply to this office communication, would be favorably considered if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 21-23 are tentatively considered allowable over the art of record, pending an updated search, amendments or arguments presented by the Applicant and considered by the Examiner in reply to this office communication.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

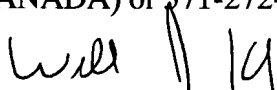
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Friday (7:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK